Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (original) In a discrete multitone (DMT) system, a method for transmitting data between a first device and a second device, the method comprising:

allocating a predetermined number of bits of data for each of a plurality tones;

transmitting redundant sets of data on each of a plurality of different tones, each redundant set including the predetermined number of bits of data;

receiving the redundant sets of data by the second device; and

identifying the data represented by the redundant sets of data using a voting scheme.

2. (currently amended) The method of claim 1, wherein the predetermined number of bits of data comprises one bit and the plurality of different tones comprises N tones, wherein N is an odd integer, and the transmitting comprises:

transmitting each bit of data on each of N non-consecutive tones, wherein each of the N non-consecutive tones is not adjacent in a frequency domain to other ones of the N non-consecutive tones.

3. (original) The method of claim 2, wherein the identifying comprises:

decoding the N tones, and

determining the identity of a data bit represented by a redundant set of data when

more than one half of the decoded N tones correspond to a particular value.

4. (original) The method of claim 1, wherein the transmitting comprises:

transmitting a data bit representing a "1" with a maximum or near-maximum power level.

5. (original) The method of claim 4, wherein the transmitting further comprises:

transmitting a data bit representing a "0" with a zero or near-zero power level.

6. (original) The method of claim 1, wherein the transmitting redundant sets of data is performed during a training period.

7. (original) The method of claim 1, wherein the predetermined number of bits comprises a plurality of bits and the plurality of tones comprises N non-consecutive tones, wherein the identifying comprises:

decoding the N non-consecutive tones to identify the plurality of bits, and

voting on the identity of each of the plurality of bits on a bit-by-bit basis.

8. (original) A first device configured to communicate using discrete multitone (DMT) modulation, comprising:

logic configured to allocate a first number of bits of data for each of a plurality of tones;

logic configured to receive a redundant set of data via a plurality of tones from a

second device; and

logic configured to identify the data based on a voting scheme.

9. (original) The first device of claim 8, wherein the plurality of tones comprises N tones, where N is an odd integer, and the first number of bits of data comprises one bit.

10. (original) The first device of claim 9, further comprising:

logic configured to:

decode the data transmitted on each of the N tones, and

forward the decoded data; and

wherein the logic configured to identify the data comprises:

a voter configured to:

receive the decoded data, and

determine that a bit is equal to a first value when more than one half of the decoded N tones correspond to the first value.

11. (original) The first device of claim 8, further comprising:

logic configured to transmit data in accordance with the allocation during at least a training period associated with the first device and the second device.

12. (original) The first device of claim 11, wherein the logic configured to transmit data is configured to transmit at a first power level for data representing a "1" and transmit at a second power level for data representing a "0."

13. (original) The first device of claim 11, wherein the logic configured to transmit data is configured to transmit data representing a "1" using a first magnitude and phase and transmit data representing a "0" using a second magnitude and phase.

14. (original) The first device of claim 8, further comprising:

transmit logic configured to:

transmit redundant data on each of a plurality of different tones during a training period, wherein each of the plurality of different tones carries the first number of bits.

15. (original) The first device of claim 8, wherein the logic configured to identify the data is configured to:

decode the received redundant set of data, and

identify the data on a bit-by-bit voting.

16. (currently amended) A first device configured to communicate in a discrete multitone (DMT) system, comprising:

a transmitter configured to transmit redundant data on a first number of tones to a second device; and

a receiver configured to:

receive data transmitted on the first number of tones from the second device,

decode the data received on the first number of tones, and

determine the identity of the received data based on a ~~predetermined rule~~ determination that a bit or group of bits is equal to a first value when more than one half of the decoded first number of tones correspond to the first value.

17. (canceled)

18. (original) The first device of claim 16, wherein when transmitting redundant data to the second device, the transmitter is configured to:

transmit a predetermined number of bits representing the redundant data on each of the first number of tones.

19. (original) The first device of claim 18, wherein the first number of tones comprises non-consecutive tones in the DMT system.

20. (original) The first device of claim 18, wherein the first number of tones are separated by a maximum number of tones based on a total number of tones used in the DMT system.